COMPUTER KEYBOARD WITH QUANTITATIVELY FORCE-SENSING KEYS

ABSTRACT OF THE DISCLOSURE

A computer keyboard has a grid of conductors forming a plurality of intersections, with force-sensitive resistor (FSR) elements located between the conductors at the intersections. A plurality of keys are located above the intersections and exert force on the conductors and FSR elements during key presses. A resistor network sub-circuit is connected to some of the conductors, and is switchable between low and high resistance values. An Analog to Digital Converter (ADC) is coupled to the resistor network sub-circuit. A microprocessor grounds a conductor and tests another conductor for a threshold voltage level while the resistor network is switched to the high resistance value. The microprocessor switches the resistor network to the low resistance value upon detecting the threshold voltage level and subsequently receives from the ADC a digital value of a voltage on the tested conductor.